

**REGISTRATION FOR RADIATION
SOURCES USED IN THE HEALING ARTS**

Check one: New registration
 Additional machines

A. General Information (type or print)

1. Name of facility or owner _____
2. Street address _____
City and Zip _____
3. Name of doctor(s) practicing at the above address _____
4. Name of individual responsible for radiation safety of this equipment _____
Address _____
5. Has your equipment been inspected by someone on the list of private inspectors of X-ray equipment during the last year?
 yes no
6. If so, by whom? _____ Last date checked _____

B. X-ray Machines Register each tube in a separate section; including combination fluoro-radiographic units.

Type of machine _____	Date installed _____	Reg. No.	
Manufacturer _____	Model # _____	_____	
Console serial _____	Tube serial _____	(state use only)	
Rating: Max machine energy (specify KVP or MEV) _____	Max machine mA _____		
	Machine location _____		
Type of machine _____	Date installed _____	Reg. No.	
Manufacturer _____	Model # _____	_____	
Console serial _____	Tube serial _____	(state use only)	
Rating: Max machine energy (specify KVP or Mev) _____	Max machine mA _____		
	Machine location _____		
Type of machine _____	Date installed _____	Reg. No.	
Manufacturer _____	Model # _____	_____	
Console serial _____	Tube serial _____	(state use only)	Mev)
Rating: Max machine energy (specify KVP or _____)	Max machine mA _____		
	Machine location _____		
Type of machine _____	Date installed _____	Reg. No.	
Manufacturer _____	Model # _____	_____	
Console serial _____	Tube serial _____	(state use only)	Mev)
Rating: Max machine energy (specify KVP or _____)	Max machine mA _____		
	Machine location _____		

Date _____ Owner's Signature _____

**VIRGINIA DEPARTMENT OF HEALTH
RADIOLOGICAL HEALTH**

P.O. Box 2448
Richmond, VA 23218
(804) 786-5932

INSTRUCTIONS FOR PREPARATION OF FORM RH-F-2

Form RH-F-2 is used to apply for registration of X-ray machine facilities and X-ray machines used in the healing arts.

Machines located at different addresses should be registered on separate forms.

Mail both copies of this registration; One copy will be returned for your file.

Registration expires on notice and may be renewed upon payment of the registration fee.

All owners or operators of X-ray machines are required to register their machines within 30 days after installation and request an initial inspection by a private inspector or a Department of Health Inspector. In the event of changes in or installations of new equipment during the last ninety days of a period for which an inspection has been made no interim inspection shall be required.

A list of Private Inspectors will be provided with the enclosed registration forms and upon request.

All registrants who sell, donate, substantially modify or receive additional radiation sources are required to notify this agency of same.

Notes:

Item - Specify type of Practice:

If the facility is owned or operated as a state or local governmental agency, then specify type of practice and also below "other" enter "State Institution" or name of the local government. Hospitals with out-patient or satellite clinics not located at the main hospital site should specify type of practice as medical for the clinics.

Item - Type of machine:

- | | |
|---------------------------------|----------------------------------|
| 1 - General Purpose Radiography | 11 - CT Whole Body Scanner |
| 2 - General Purpose Fluoroscopy | 12 - Head-Neck (Medical) |
| 3 - Tomography (Other than CT) | 13 - Dental- Intraoral |
| 4 - Angiography | 14 - Dental- Cephalometric |
| 5 - Podiatry | 15 - Dental- Panoramic |
| 6 - Urology | 16 - Radiation Therapy Simulator |
| 7 - Mammography | 17 - C-arm Fluoroscopic |
| 8 - Chest | 18 - Digital |
| 9 - Chiropractic | 19 - Therapy < 1 Mev |
| 10 - CT Head Scanner | 20 - Therapy > 1 Mev |
| | 21 - Other_____ |

Register Combination Fluoro-Radiographic units as separate machines. Do not check type of machines such as Mammography, Chest, or Head-Neck unless the machine is a dedicated used only for that purpose.

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Radiological Health
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**REGISTRATION FOR RADIATION SOURCES
NOT USED IN THE HEALING ARTS**

Check one: New Registration Additional machines

A. Instructions

This form is to register all sources of ionizing radiation not licensed by the N.R.C. or by the Commonwealth of Va. Only those sources used or stored at one address may be registered on one form. Return both copies of the completed form to Radiological Health at the above address. One copy will be returned as proof of registration.

B. General Information (type or print)

1. Name _____ of _____ facility _____ or _____ owner

2. Address _____

3. Telephone () _____

4. Location _____ of _____ sources _____ (if _____ different _____ from above) _____

5. Name of individual responsible for radiation safety.

Name _____ Address _____

Business Phone _____ Home Phone _____

6. Date of last survey of sources at this location for radiation safety.

Date _____ by whom? _____

7. Are _____ personnel _____ monitoring _____ devices _____ employed? _____ Type?

C. Radiation Producing Machines:

Type <small>(accelerator, X-ray, etc.)</small>	Manufacturer	Serial #	Type of Energy	Max Energy	Purpose
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Signature _____ Date _____
Title _____

VIRGINIA DEPARTMENT OF HEALTH
RADIOLOGICAL HEALTH
P.O. Box 2448
Richmond, VA 23218
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___ Original application
___ Renewal application

APPLICATION FOR RADIOACTIVE MATERIAL LICENSE

Instructions: Complete Items 1 – 16 if this is an initial application or an application for renewal of a license. Information contained in previous applications files with the Dept. with respect to items 8 – 15 may be incorporated by reference provided references are clear and specific. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail two copies to: Va. Health Dept., Radiological Health, P.O. Box 2448, Richmond, Va., 23219. Upon approval of this application, the applicant will receive a radioactive material license.

1. (a) Name and street address of applicant (institution, firm, hospital, person)	(c) Street address(es) where radioactive material will be used (if different from 1(a)).			
(b) Business telephone (include area code)				
2. Department to use radioactive material	3. Previous license number(s)			
4. Individual user(s) name and title of individual(s) who will directly supervise use of radioactive material. Give training and exp. In items 8 and 9.	5. Radiation safety officer (if other than indiv. User, attach summary of training and experience as in item 8 and 9.			
6. (a) Radioactive material (elements and mass number of each)	(b) Chemical and/or physical form and max. number of millicuries of each chemical and/or physical form that you will possess at any one time (if sealed source(s) also state manufacturer, model number of sources, and max. activity per source)			
7. Describe purpose for which radioactive material will be used (if for human use, a supplementary form (human use application) must be completed in lieu of this item. If in the form of a sealed source, include make and model of the storage container and/or device in which the source will be stored or used.				
TRAINING AND EXPERIENCE OF EACH INDIVIDUAL NAMED IN ITEM 4 (use additional sheets if necessary)				
8. Type of Training	Where trained	Duration of training	On the job	Formal course
(a) Principles and practices of radiation protection				
(b) Radioactivity measurement standardization and monitoring techniques and instruments				
(c) Mathematics and calculations basic to the use and measurement of radioactivity.				
(c) Biological effects of radiation.				

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RADIOLOGICAL HEALTH
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APPLICATION FOR RADIOACTIVE MATERIAL LICENSE (continued)

9. Experience with radiation (Actual use of radioisotopes or equivalent experience)					
Isotope	Max. Amount	Where experience was gained	Duration of experience	Type of use	
10. Radiation detection instruments (use supplemental sheets if necessary)					
Type of instruments (include make and model)	Number available	Radiation detected	Sensitivity range (mR/hr)	Window thickness (mg/cm ²)	Use (monitoring, surveying, measuring)
11. Method, frequency, and standards used in calibrating instruments listed above.					
12. Film badges, dosimeters, and bio-assay procedures used (for film badges, specify method of calibrating and processing, or name of supplier)					

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS

-
13. Facilities and equipment. Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume Hoods, etc. Attach explanatory sketch of facility.
-
14. Radiation protection program. Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures and, where applicable, name, training, and experience of person to perform leak tests, and arrangements for performing initial radiation survey, servicing, maintenance and repair.
-
15. Waste disposal. If commercial waste disposal is employed, specify name of company. Otherwise, submit detailed description of methods which will be used for disposing of radioactive wastes and estimates of the type and amount of activity involved.
-

CERTIFICATE (this item must be completed by applicant)

16. The applicant and any official executing this certificate on behalf of the applicant named in item 1, certify that this Application is prepared in conformity with the Va. Radiation Protection Regulations and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

 Date

 Applicant named in item 1

 Title of certifying official

By: _____

**VIRGINIA DEPARTMENT OF HEALTH
RADIOLOGICAL HEALTH
P.O. Box 2448
Richmond, VA 23218
(804) 786-5932
GENERAL INFORMATION**

An applicant for a "Radioactive Material License" should complete RH-F-4 in detail. The applicant should endeavor to cover his entire radioisotope program with one application if possible. However, separate applications should be submitted for medical teletherapy and gamma irradiators. Supplemental sheets may be appended when necessary to provide complete information. Item 16 must be completed on all applications. Submissions of an incomplete application will often result in a delay in issuance of the license because of correspondence necessary to obtain information requested on the application.

The form RH-4a should be completed in detail each time a medical request is made for a new use of radioisotopes for humans at this installation.

Two copies of the completed form RH-F-4 and RH-F-a (if a medical application) should be sent to Radiological Health, Virginia Department of Health, P. O. Box 2448, Richmond, Virginia 23219. One copy should be retained for applicant's file.

EXPLANATION OF FORM RH-F-4

Item No.

1. (a) The "applicant" is the organization or person legally responsible for possession and use of the radioactive material specified in the application. (b) indicate other address(es) at which radioactive material will be used if different from that listed in (a). A post office number is not acceptable.
 2. The "department" is the department or similar sub-division where the radioactive material will be used.
 3. Self-explanatory.
 4. The "individual user" is the person experienced in the use and safe handling of radioisotopes. If the application is for "human use", the individual user must be a physician licensed by the Commonwealth of Virginia to dispense drugs in the practice of medicine and have extensive experience for each proposed clinical use.
 5. Self-explanatory.
 6. (a) List by name each radioisotope desired, such as "Carvon-14", "Cobolt-60", etc.
(b) List chemical and/or physical form for each radioisotope and the quantity of each which the applicant desires to possess at any one time. If more than one physical or chemical form of a particular isotope is desired, a separate possession limit should be asked for on each form. For example, an applicant desiring to use two chemical forms of Iodine-131 must specify both forms and a possession limit for each form.
Example:

Iodine-131	Iodine	10 millicuries
Iodine-131	Iodinated Human Serum Alburmin	1 millicuire
Krypton-85	Gas	1000 millicuries
- If any radioactive material is to be obtained as a sealed source(s), specify the manufacturer, model number, and amount of activity in each sealed source.
- Example:
- Cobolt-60, 3 sealed sources, 100 millicuries each, 300 millicuire total. (Iso Corporation, Model Z-54).
7. State the use of each radioactive material and chemical form specified in item 6(a) and (b). If the radioisotope is for "human use", do not complete this item; complete form RH-F-4a, Supplement A – Human Use.
 - 8-9. These items must be completed for each individual named in item 4. If more than one individual is listed in item 4, clearly key the name of each individual to his experience.
 - 10-16. Self-explanatory.

VIRGINIA DEPARTMENT OF HEALTH

RADIOLOGICAL HEALTH

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**APPLICATION FOR RADIOACTIVE MATERIAL LICENSE
SUPPLEMENTAL A – HUMAN USE (continued)**

This page may be completed by the physician's preceptor (if any) in the medical use of radioisotopes. When the information is not furnished by the preceptor, the name and present address of the preceptor (if any) should be shown in item 12 below.

9. Applicants physician's name, address and ZIP code			
Key to column C: Personal participation should consist of: A. Supervised examination of patients to determine the suitability for radioisotope diagnosis and/or treatment and recommendation for prescribed dosage. B. Collaboration in dose calibration and actual administration of dose to the patient including calculation of the radiation dose, related measurements and plotting of data. C. Adequate period of training to enable physician to manage radioactive patients and follow patients diagnosis and/or course of treatment.			
10. Clinical training and experience of above named physician.			
Isotope A	Conditions diagnosed or treated B	Number of cases involving Personnel participation C	Comments (use extra sheets in duplicate if needed) D
I-131 Or I-125	Diagnosis of thyroid function		
	Determination of blood and blood plasma volume		
	Liver function studies		
	Fat absorption studies		
	Kidney function studies		
In vitro studies			
Other			
I-125	Detection of thrombosis		
I-131	Thyroid imaging		
P-32	Eye tumor localization		
Se-75	Pancreas imaging		
Yb-169	Cisternography		
Xe-133	Blood flow studies and pulmonary function studies		
Other			
Tc-99m	Brain imaging		
	Cardiac imaging		
	Thyroid imaging		
	Salivary gland imaging		
	Blood pool imaging		
	Placenta localization		
	Liver and spleen imaging		
	Lung imaging		
Bone imaging			

**APPLICATION FOR RADIOACTIVE MATERIAL LICENSE
SUPPLEMENT A – HUMAN USE (continued)**

Using Physician's Name:			
10. Clinical training and experience of above named physician (continued)			
Isotope A	Conditions diagnosed or treated B	Number of cases involving Personal participation C	Comments (use extra sheets in duplicate if needed) D
P-32 soluble	Treatment of polycythemia vera, leukemia, and bone metastases		
P-32 Colloidal	Intracavitary treatment		
I-131	Treatment of thyroid carcinoma		
I-131	Treatment of hyperthyroidism		
Au-198	Intracavitary treatment		
Co-60 or Cs-137	Interstitial treatment		
	Intracavitary treatment		
I-125 or Ir-192	Interstitial treatment		
Co-60 or Cs-137	Teletherapy treatment		
Sr-90	Treatment of eye disease		
	Radiopharmaceutical preparation		
Mo-99/ Tc-99m	Generator		
Sn-113/ In-113m	Generator		
Tc-99m	Reagent kits		
Other			
11. Dates and total number of hours received in clinical radioisotope training:			
12. The training and experience indicated above was obtained Under the supervision or guidance of:		13. Preceptor's signature	
(a) Name of supervisor _____		14. Preceptor's name (type or print)	
(b) Name of Institution _____		15. Date	
(c) Mailing Address _____			
(d) City, state, ZIP code _____			

INSTRUCTIONS FOR PREPARATION OF FORM RH-F-4A

Item No.

1. Self Explanatory
2. Self Explanatory
3. State Regulations provide that the using physician have substantial experience in the proposed use, the handling and administration of radioisotopes, and, where applicable, the clinical management of radioactive patients. The physician must furnish suitable evidence of such experience with his application. Supplement A-Human Use, Page2, is provided for conveniently presenting these details.
4. Name or describe each clinical use for each radioisotope and chemical form administered. List radiological protection procedures to be followed in sufficient detail to permit a realistic evaluation of the potential radiological hazards.
5. (a) Dosage for treatment of patient will depend upon the clinical judgement of the responsible physician; the Agency is only interested in the proposed dosage range. (b) For experimental programs, or new and unusual uses, the maximum single dose of radioactive material to be administered should be included and the approximate number and frequency of such doses. Rationale for unusual high dosages should be presented. The proposed use should be outlined in detail demonstrating that radiological health and safety of the patient will not be jeopardized. If the use duplicates, or is based on, a use reported in the technical literature, an abstract of such a report or article and a brief statement as to how such use will be followed or modified will surface.
6. Radioisotopes furnished by N.R.C. facilities are pharmaceutically UNREFINED. An applicant should include information regarding the processing or standardization procedure if radioactive material will not be obtained in precalibrated form for oral administration or precalibrated and sterilized form for parenteral administration.
7. Self-explanatory.
8. (a) Give the name(s) and address(es) of the hospital(s) which will admit your patients that have been administered radioisotopes. (b) Submit a copy of the radiological protection instructions furnished to the hospital personnel regarding the care of patients to whom radioisotopes have been administered. Attach a list of radiation instruments you will make available to the hospital.
9. To be completed by using physician.
- 10-11. It is recommended that these items be completed by the applicant physician's preceptor in the use of radioisotopes.
12. The pre-septoring physician is usually the chairman of the medical isotopes committee of the Institution where clinical experience was acquired. However, the preceptor may be a staff physician experienced in the clinical use of radioisotopes under whom the using physician's radioisotope training and experience was acquired. If possible, the physician's entire clinical radioisotope experience should be included. Additional comments may be presented on supplemental sheets which should include the applicant's name and address and the item number to which the supplemental information applies on such sheet.

Note – For Medical Institutional Type Program

1. List the names, specialties, and radioisotopes experience, if any, of each member of the local isotope Committee.
2. State the procedures the local isotope committee will use to control the procurement and to approve uses of radioisotopes at the institution.
3. Submit a copy of instructions given to nurses who will care for patients containing radioactive material.
4. Submit a copy of radiological protection rules and procedures to individuals using radioisotopes at the institution.

**VIRGINIA DEPARTMENT OF HEALTH
 RADIOLOGICAL HEALTH**
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APPLICATION FOR SOURCE MATERIAL LICENSE

Pursuant to the regulations in the Va. Radiation Protection Regulations, application is hereby made for a license to receive, possess, use, transfer or to deliver source material for the activity or activities described.

1. (check one) <input type="checkbox"/> (a) New License <input type="checkbox"/> (b) Amendment to License No.: _____ <input type="checkbox"/> (c) Renewal of License No.: _____ <input type="checkbox"/> (d) Previous License No.: _____	2. Name of applicant <hr/> 3. Principal business address	
4. Address at which the source material will be possessed or used		
5. Business or occupation	6. (a) if applicant is an individual, state citizenship	(b) Age
7. Describe purpose for which source material will be used		
8. State the type(s), chemical form(s), and quantities of source material you propose to receive, possess, use or transfer under the license		
(a) Type	(b) Chemical Form	(c) Physical form (including % U or Th)
(d) Maximum amount at any one time (lbs)		
Normal Uranium		
Uranium depleted in U-235 isotope		
Thorium		
(e) Maximum total quantity of source material you will have on hand at any time (in lbs): _____		
9. Describe the chemical, physical, metallurgical, or nuclear process or processes in which the source materials will be used, indicating the maximum amount of source material involved in each process at any one time, and providing a thorough evaluation of the potential hazards associated with each step of those operations.		
10. Describe the minimum technical qualifications including training and experience that will be required of applicant's supervisory personnel including person responsible for radiation safety program (or of applicant is applicant is an individual)		

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APPLICATION FOR SOURCE MATERIAL LICENSE (continued)

11. Describe the equipment and facilities which will be used to protect health and minimize danger to life

or property and relate the use of the equipment and facilities to the operations listed in item 9:

Include:

(a) radiation detection and related instruments (including film badges, dosimeters, air-monitoring and other survey equipment as appropriate. The description of radiation detection instruments should include of the type radiation detected and the range(s) of each instrument.

(b) Method, frequency, and standards used in calibrating instruments listed in (a) above (for film Badges, specify method of calibration and processing, or name supplier.)

(c) Ventilation equipment which will be used in operations which produce dust, fumes, mist, gases, Etc.

12. Describe proposed procedures to protect health and minimize danger to life and property and relate

These procedures to the operations listed in item 9. Include:

(a) Procedures for the use of nuclear materials and safety features and procedures to avoid non-nuclear accidents, such as fire, explosion, etc., in source material storage and processing areas.

(b) Emergency procedures in the event of accidents which might involve source material.

(c) Detailed description of radiation survey program and procedures.

13. Waste products: If none will be generated, state "none" opposite (a), below, If waste products will be

Generated, check here__ and explain on a supplemental sheet.

(a) Quantity and type of radioactive waste that will be generated.

(b) Detailed procedures or waste disposal.

14. If products for distribution to the general public under an exemption contained in Part 4 of the Va.

Radiation Protection Regulations are to be manufactured, use a supplemental sheet to furnish a detailed description of the product including:

(a) Percent source material in the product and its location in the product.

(b) Physical description of the product including characteristics, if any, that will prevent inhalation or ingestion of the source material that might be separated from the product.

(c) Beta and beta plus gamma radiation levels (specify instrument used, data of calibration, and calibration technique used) at the surface of the product and at 12 inches.

(d) Method of assuring that source material cannot be disassociated from the manufactured product.

(this item must be completed by applicant)

15. The applicant, and any official executing this certificate on behalf of the applicant named in item 2,

Certify that this application is prepared in conformity with the Va. Radiation Protection regulations and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

Date _____

_____ (applicant named in item 2)

by: _____

_____ (title of certifying official authorized to act on

behalf of

the applicant)

**VIRGINIA DEPARTMENT OF HEALTH
RADIOLOGICAL HEALTH**

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PREVIOUS OCCUPATIONAL EXTERNAL RADIATION EXPOSURE

IDENTIFICATION

1. Name (print – last, first, middle) and Address		2. Social Security Number		
		3. Date of Birth (month, day, year)		
		4. Age in Full Years (N)		
OCCUPATIONAL EXPOSURE – PREVIOUS HISTORY				
5. Previous Employments Involving Radiation Exposure (list name and address of employer)	6. Dates of Employment (from – to)	7. Periods of Exposure	Previous Dose History	
			8. Whole Body Exposure (rem)	9. Record or Calculated (insert one)
10. Accumulated Occupational Dose – Total				
11. Remarks (use additional sheets if necessary)				
12. Calculations – Permissible Dose Whole body: a. Permissible accumulated dose Equals 5(n-18) equals _____ rem b. Total exposure to date (from Item 10) equals _____ rem c. Unused part of permissible Accumulated dose _____ rem			13. Certification: I certify that the exposure history listed in Column 5,6, and 7 is correct and complete to the best of my knowledge and belief. _____ Employee's Signature Date	
			14. Name and address of employer	

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INSTRUCTIONS FOR PREPARATION OF RH-F-8

This form or a clear legible record containing all the information required on this form must be prepared by each licensee or registrant of the Va. Health Dept. who, pursuant to 12 VAC 5-481-640, proposes to expose an individual to a radiation dose in excess of the amounts specified in 12 VAC 5-481-640 A of the regulations in the Va. Radiation Protection Regulations. The requirement for completion of this form is contained in 12 VAC 5-481-650 of those regulations. The information contained in this form is used for estimating the external accumulated occupational dose of the individual for whom the form is completed. A separate Form RH-F-8 shall be completed for each individual to be exposed to a radiation dose in excess of the limits specified in 12 VAC 5-481-640 A of the Va. Radiation Protection Regulations.

Listed below by item are instructions and additional information directly pertinent to completing this form:

Identification

1. Self-explanatory
2. Self-explanatory except that, if the individual has no social security number, the word "none" shall be inserted.
3. Self-explanatory
4. Enter the age in full years. This is called "N" when used in calculating the Permissible Dose. "N" is equal to the number of years of the age of the individual on his last birthday.

Occupational Exposure

5. List the name and address of each previous employer and the address of employment. Start with the most recent employer and work back. Include only those periods of employment since the eighteenth birthday involving occupational exposure to radiation. For periods of self-employment, insert the word "self-employed".
6. Give the dates of employment.
7. List the periods during which occupational exposure to radiation occurred.
8. List the dose recorded for each period of exposure from records of previous occupational exposure of the individual as calculated under 12 VAC 5-481-650. Dose to be given in rem. "Dose to the whole body" shall be deemed to include any dose to whole body, gonads, active blood-forming organs, head and trunk, or lens of the eye.
9. After each entry in Item 8, indicate in Item 9 whether the dose is obtained from records or calculated in accordance with 12 VAC 5-481-650.

Total Accumulated Occupational Dose (Whole Body)

11. The total for the whole body is obtained by summation of all values in Item 8.

Certification

12. Upon completion of the report, the employee must certify that the information in Columns 5, 6 and 7 is accurate and complete to the best of his knowledge. The date is the date of his signature.

Calculations

13. The lifetime accumulated occupational dose for each individual and the permissible dose under 12 VAC 5-481-640 B are obtained by carrying out the following steps: The value for "N" should be taken from Item 4. Subtract 18 from N and multiply the difference by 5 rem. (for example, John Smith, Age 32; $N = 32$, $PAD = 5(32-18) = 70$ rem.) Enter total exposure to date from Item 11. Subtract (b) from (a) and enter the difference under (c). The value in (c) represents the unused part of the permissible accumulated dose. This value for permissible dose is to be carried forward to Agency Form RH-F-9, "Current Occupational External Radiation Exposure".
14. Self-explanatory.

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CURRENT OCCUPATIONAL EXTERNAL RADIATION EXPOSURE

IDENTIFICATION

1. Name (print – last, first, middle) and address	2. Social Security Number
	3. Date of Birth (month, day, year)
	4. Name of Employer

OCCUPATIONAL EXPOSURE

5. Dose Recorded For (specify: whole body; skin of whole body; hands and forearms; feet and ankles)	6. Whole Body Dose Status (rem)	7. Method of Monitoring (e.g. film badge; pocket chamber; calculated; TLD) X or Gamma _____ Beta _____ Neutrons _____
--	--	--

Initials of person making entry	Period of Exposure (from – to)	8. Dose for the Period (rem)			12. Total	13. Running Total for Calendar Qtr. (rem)
		9. X or Gamma	10. Beta	11. Neutron		

LIFETIME ACCUMULATED DOSE

14. Previous Total (rem)	15. Total Quarterly Dose (date) (rem)	16. Total Accumulated Dose (rem)	17. Perm. Acc. Dose 5(N-18) (rem)	18. Unused Part of Accumulated Dose (rem)

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INSTRUCTIONS FOR PREPARATION OF FORM RH-F-9

The preparation and safekeeping of this form or a clear and legible record containing all of the information required on this form is required pursuant to 12 VAC 5-481-720 of the Va. Protection Regulations. Such record must be maintained for each individual for whom personnel monitoring is required under 12 VAC 5-481-680. Note that a separate Agency Form RH-F-9 is to be used for recording external exposure to (1) the whole body; (2) skin of the whole body; (3) hands and forearms; or (4) feet and ankles, as provided by item 5 below.

Listed below by item are instructions and additional information directly pertinent to completing this form.

Item No.

1. Self-explanatory.
2. Self-explanatory except that, if individual has no social security number, the word "non" shall be inserted.
3. Self-explanatory.
4. Self-explanatory.
5. "Dose to the whole body shall be deemed to include any dose to the whole body, gonads, active blood-forming organs, head and trunk, or lens of eye. Unless the lenses of the eye are protected with eye shields, dose recorded as whole body doses should include the dose delivered through a tissue equivalent absorber having a thickness of 300 mg/cm² or less.

Dose recorded as dose to the skin of the whole body, hands and forearms, or feet and ankles should include the dose delivered through a tissue equivalent absorber having a thickness of 7 mg/cm² or less. The dose to the skin of the whole body, hands and forearms, or feet and ankles should be recorded on separate forms unless the dose to those parts of the body has included as dose to the whole body on a form maintained for recording whole body exposure.
6. This item need be completed only when the sheet is used to record whole body exposures and the Licensee or registrant is exposing the individual under the provisions of 12 VAC 5-481-640 which allows up to 3 rem per quarter to the whole body. Enter in this term the unused part of permissible accumulated dose taken from previous records of exposure, i.e., item 18 of the preceding Agency Form RH-F-9 or item 13 of Agency Form RH-F-8 if the individual's exposure during employment with the licensee begins with this record.
7. Indicate the method used for monitoring the individual's exposure to each type of radiation to he is exposed in the course of his duties. Abbreviations may be used.
8. Doses received over a period of less than a calendar quarter need not be separately entered on the form provided that the licensee maintains a current record of the doses received by the individual which have not as yet been entered on the form. The period of exposure should specify the day the measurement of that exposure was initiated and the day on which it was terminated. For example, if only quarterly doses are entered, the period of exposure for the first calendar quarter of 1962 might be taken as running from Monday, January 1, 1962, through Friday, March 30, 1962, and would be indicated in the item as Jan. 1, 1962 – Jan. 5, 1962. If weekly doses are entered, a film badge issued Monday morning, January 1, 1962, and picked up Friday, January 5, 1962, would be indicated as Jan. 1, 1962 – Jan. 5, 1962.
- 9-11. Self-explanatory. The values are to be given in rem. All measurements are to be interpreted in the Best method known and in accordance with Agency regulations. Where calculations are made to determine dose, a copy of such calculations is to be maintained in conjunction with the record. In any case where the dose for a calendar quarter is less than 10% of the value specified in 12 VAC 5-481-640 A, the phrase "less than 10%" may be entered in lieu of a numerical value.
12. Add the values under items 9, 10 and 11 for each period of exposure and record the total. In calculating the "Total" any entry "less than 10%" may be disregarded.
13. The running total is to be maintained on the basis of calendar quarters. No entry is need be made in this item if only calendar quarter radiation doses are recorded in items 9, 10, 11 and 12.

**VIRGINIA DEPARTMENT OF HEALTH
RADIOLOGICAL HEALTH**
P.O. Box 2448
Richmond, VA 23218
(804) 786-5932

RADIOACTIVE MATERIAL LICENSE



Pursuant to Va. Radiation Protection Regulations, and in reliance on statements and representations Heretofore made by the licensee is hereby issued authorizing the licensee to receive, acquire, possess, And transfer radioactive material for the purpose(s) and at the place(s) designated below. This license Is subject to all applicable rules and regulations of the Va. Dept. of Health and orders of the Bureau Of Radiological Health, now or hereinafter in effect and to any conditions specified below.

LICENSEE 1. Name 2. Address		3. License Number 4. Expiration date 5. File no.	
6. Radioactive Material (Element and Mass Number)	7. Type of Radioactive Material License	8. Chemical and/or physical form	9. Maximum activity and/or quantity of material which licensee may possess at any one time.
10. Authorized use			

CONDITIONS

11. Unless otherwise specified, the authorized place of use is in the licensee's address stated in item 2, above.

Date of issuance _____ For the commissioner
VIRGINIA DEPARTMENT OF HEALTH

By: _____
 RADIOLOGICAL HEALTH AGENCY

Radiological Health Program
P.O. Box 2448
Richmond, VA 23218
(804) 786-5932
NOTICE TO EMPLOYEES

STANDARDS FOR PROTECTION AGAINST RADIATION

Notices, Instructions and Report to Workers

Inspections

Your Employer's Responsibility

Your employer is required to:

1. Apply these Department of Health regulations and any conditions of his radioactive material license to all work involving radiation sources.
2. Post or otherwise make available to you a copy of the regulations, licenses and operating procedures which apply to work you are engaged in, and explain their provisions to you.
3. Post Notice of Violations involving radiological working conditions, proposed imposition of civil penalties and orders.

Your Responsibility as a Worker

You should familiarize yourself with these provisions of the regulations and operating procedures, which apply to work, you are engaged in. You should observe their provisions for your protection and the protection of your co-workers.

What is covered by these Regulations

1. Limits on exposure to radiation and radioactive materials in restricted and unrestricted area;
2. Measures to be taken after accidental exposure;
3. Personnel monitoring, surveys and equipment;
4. Caution signs, labels, and safety interlock equipment;
5. Exposure records and reports; and
6. Related matters.

Reports on your Exposure History

1. The Dept. of Health regulations require that your employer give you a written report if you receive an
Exposure in excess of any applicable limit as set forth in the regulations or the license. The basic limits for exposure to employees are set forth in 12 VAC 5-481-640, 12 VAC 5-481-660 and 12 VAC 5-481-670 of the regulations. These sections specify limits on exposure to radiation and exposure to concentrations of radioactive material in air or water.
2. If you work where personnel monitoring is required pursuant to 12 VAC 5-481-760;
 - a. Your employer must give you a written report of your radiation exposure upon the termination of
Your employment and,
 - b. Your employer must advise you annually of your exposure to radiation.

Inspections

All licensed or registered activities are subject to inspection by representatives of the Dept. of Health. In addition, any worker or representative of workers who believes that there is a violation of the Va. Radiation Protection Regulations or the terms of the employer's license or registration with regard to radiological working conditions in which the worker is engaged, may request an inspection by sending a notice of the alleged violation to Radiological Health. The request must set forth the specific grounds for the notice, and must be signed by the worker as the representative of the workers during inspections. Health Dept. inspectors may confer privately with the workers, and any worker may bring to the attention of the inspectors any past or present

condition which believes contributed to or causes any violation as described above.

Posting Requirements

Copies of this notice must be posted in a sufficient number of places in every establishment where activities covered by the regulations are conducted to permit employees working in or frequenting any portion of a restricted area to observe a copy on their way to or from their place of employment.

INQUIRES

Inquires dealing with matters outlined above can be sent to:

Virginia Health Department
Radiological Health Program
1500 East Main Street, Room 240
Richmond, VA 23219

Telephone:
(804) 786-5932
(800) 468-0138 toll free
VIRGINIA ONLY

Radiation Emergency
for 24 hour response
Call: 1-800-468-8892
Department of

Emergency Management

All policies, procedures, regulations, and inspection reports for our Virginia License are available for examination upon request.

**VIRGINIA DEPARTMENT OF HEALTH
RADIOLOGICAL HEALTH
P.O. Box 2448
Richmond, VA 23218
(804) 786-5932**

**CERTIFICATE – MEDICAL USE OF RADIOACTIVE MATERIAL UNDER GENERAL
LICENSE**

12 VAC 5-481-430 H of the Va. Radiation Protection Regulations establishes a general license authorizing physicians to possess certain small quantities of I-125, I-131, Co-57, Co-58, and Cr-51 for specified diagnostic uses. Possession of radioactive material under 12 VAC 5-481-430 H is not authorized until the physician has filed Form RH-F-13 and received from the commissioner a validated copy of Form RH-F-13 with certification number assigned.

Instructions: Submit this form in triplicate to Va. Health Dept., Radiological Health, P.O. Box 2448, Richmond, Va. 23219. A certification number will be assigned and a validated copy of Form RH-F-13 will be returned.

1. Please print or type within the dotted lines, below, your name and address (including ZIP code).

.....
.
.
.
.
.....

3. To be completed by the Agency:

Certification Number:

4. If place of use is different from address in Item 1, please give complete address:

5. Certification:

I hereby certify that:

- a. All information in this certification is true and correct.**
- b. I have appropriate radiation measuring instruments available to carry out the diagnostic procedures for which I will use radioactive material under the general license of 12 VAC 5-481-430 H and I am competent in the use of such instruments.**
- c. I understand that regulations require that any change in the information furnished on this certificate be reported to the Agency, within 30 days from the effective date of such change.**
- d. I have read and understand the provisions of 12 VAC 5-481-430 H (reprint on the reverse side of this form); and I Understand that the compliance with those provisions is required as to all radioactive material which is received, acquired, possessed, used, or transferred under the general**

license for which this Certificate is filed with the Agency.

- e. I am a duly licensed physician authorized to dispense drugs in the practice of medicine.
My (state) license
Number is:

_____.

Date _____

Signature

_____.

(printed name and title or position of person filing form)

12 VAC 5-481-430 H Medical Diagnostic Uses

1. A general license is hereby issued to any physician to receive, possess, transfer, or use radioactive material set
Forth below for the stated diagnostic uses, provided, however, that the use is in accordance with the provisions of 12 VAC 5-481-430 H 2, 12 VAC 5-481-430 H 3 and 12 VAC 5-481-430 H 3, the radioactive material is in the form of capsules, disposable syringes, or other prepackaged individual doses; and the radioactive material has been manufactured in accordance with a specific license issued by the commissioner pursuant to 12 VAC 5-481-470, or by the U.S. Nuclear Regulatory Commission, any Agreement State or a Licensing State pursuant to equivalent regulations authorizing distribution to persons generally licensed pursuant to 12 VAC 5-481-430 H or its equivalent:
 - a. iodine-131 as sodium iodide for measurement of thyroid uptake;
 - b. iodine-131 as iodinated human serum albumin (IHSA) for determination of blood and blood plasma volume;
 - c. iodine-125 as iodinated human serum albumin (IHSA) for determination of blood and blood plasma volume;
 - d. cobalt-57 for the measurement of intestinal absorption of cyanocobalamin;
 - e. cobalt-58 for the measurement of intestinal absorption of cyanocobalamin; and
 - f. cobalt-60 for the measurement of intestinal absorption of cyanocobalamin, and
 - g. chromium-51 as a sodium radiochromate for the determination of red blood cell volumes and studies of red blood cell survival time.
2. No physician shall receive, possess, use or transfer radioactive material pursuant to the general license
Established by 12 VAC 5-481-430 H 1 until he has filed Agency Form RH-F-13, "Certificate – Medical Use of Radioactive Material Under General License" with the commissioner and received from the commissioner a validated copy of the Agency Form RH-F-13 with certification number assigned. The generally licensed physician shall furnish on Agency Form RH-F-13 the following information as may be required by that form:
 - a. name and address of the generally licensed physician;
 - b. a statement that the generally licensed physician is a duly licensed physician (authorized to dispense drugs) in the practice of medicine in this State; and
 - c. a statement that the generally licensed physician has appropriate radiation measuring instruments to carry out the diagnostic procedures for which he proposes to use radioactive material under the general license of 12 VAC 5-481-430 H and that he is competent in the use of such instruments.
3. A physician who receives, possesses, or uses a pharmaceutical containing radioactive measuring material
Pursuant to the general license established by 12 VAC 5-481-430 H 1 shall comply with the following:
 - a. He shall not possess at any one time, pursuant to the general license in 12 VAC 5-481-430 H 1 more than:
 - (1) 200 microcuries (7.4 MBq) of iodine-131
 - (2) 200 microcuries (7.4 MBq) of iodine-125
 - (3) 5 microcuries (185 kBq) of cobalt-57
 - (4) 5 microcuries (185 kBq) of cobalt-58

- (5) 5 microcuries (185 kBq) of cobalt-60, and
- (6) 200 microcuries (7.4 MBq) of chromium-51;

b. he shall store the pharmaceutical until administered in the original shipping container, or a container

Providing equivalent radiation protection;

c. he shall use the pharmaceutical only for the uses authorized by 12 VAC 5-481-430 H 1;

d. he shall not administer the pharmaceutical to a woman with confirmed pregnancy or to a person under 18 years of age; and

e. he shall not transfer the radioactive material to a person who is not authorized to receive it pursuant to a license issued by the commissioner, the U.S. Nuclear Regulatory Commission, any Agreement State or Licensing State, or in any manner other than in the unopened, labeled shipping container as received from the supplier, except by administering it to a patient.

4. The generally licensed physician possessing or using radioactive material under the general license of 12 VAC 5-481-430 H 1 shall report in duplicate to the commissioner, any changes in the information furnished by him in the "Certificate – Medical Use of Radioactive Material Under General License," Agency Form RH-F-13. The report shall be submitted within 30 days after the effective date of such change.

5. Any person using radioactive material pursuant to the general license of 12 VAC 5-481-430 H 1 is exempt from the Requirements of Part V and Part IX of these regulations with respect to the radioactive material covered by the general license.

**MEDICAL USE OF RADIOACTIVE MATERIAL UNDER GENERAL LICENSE
CONDITIONS AND LIMITATIONS OF GENERAL LICENSE S 4.22-H** (continued)

12 VAC 5-481-430 G. Manufacture and Distribution of Radioactive Material for Medical Use Under General License. In addition to requirements set forth in 12 VAC 5-481-450, a specific license authorizing the distribution of radioactive material for use by physicians under the general license in 12 VAC 5-481-430 H will be issued if:

1. the applicant submits evidence that radioactive material is to be manufactured, labeled, and packaged in accordance with a new drug application which the commissioner for Food and Drugs, Food and Drug Administration, has approved, or in accordance with a license for a biologic product issued by the Secretary, Department of Health and Human Services; and
2. one of the following statements, as appropriate, or substantially similar statement which contains the information called for in one of the following statements, appears on the label affixed to the container or appears in the leaflet or brochure which accompanies the package.
 - a. This radioactive drug may be received, possessed, and used only by physicians licensed to dispense practice of medicine. Its receipt, possession, use and transfer are subject to the regulations and a general license or its equivalent of the U.S. Nuclear Regulatory Commission or of a State with which the Commission has entered into an agreement for the exercise of regulatory authority.

Name of Manufacturer

- b. This radioactive drug may be received, possessed, and used only by physicians licensed to dispense drugs in the practice of medicine. Its receipt, possession, use and transfer are subject to the regulations and a general license or its equivalent of a Licensing State.

Name of Manufacturer

Note: if larger quantities or other forms of radioactive material than those specified in the general license of 12 VAC 5-481-430 H are required, the physician should file an "Application for Radioactive Material License", Form RH-F-4 and obtain a specific radioactive material license. Copies of application and certification forms may be obtained from: Va. Health Dept., Radiological Health, P.O. Box 2448, Richmond, VA 23219.

**VIRGINIA DEPARTMENT OF HEALTH
RADIOLOGICAL HEALTH
P.O. Box 2448
Richmond, VA 23218
(804) 786-5932**

**IN VIRO TESTING WITH RADIOACTIVE MATERIAL UNDER A GENERAL
LICENSE
CONDITIONS AND LIMITATIONS OF GENERAL LICENSE 12 VAC 5-481-430 I**

12 VAC 5-481-430 I 1. General license for Use of Radioactive Material for Certain In Vitro Clinical or Laboratory Testing.

1. A general license is hereby issued to any physician, veterinarian, clinical laboratory or hospital to receive, acquire, possess, transfer or use, for any of the following stated tests, in accordance with the provisions of 12 VAC 5-481-430 I 2, 3, 4, 5, and 6, the following radioactive materials in prepackaged units for use in vitro, clinical or laboratory test not involving internal or external administration of radioactive material, or the radiation therefrom, to human beings or animals:
 - a. Iodine-125, in units not exceeding 10 microcuries (370 kBq) each.
 - b. Iodine-131, in units not exceeding 10 microcuries (370 kBq) each
2. No person shall receive, acquire, possess, use or transfer radioactive material pursuant to the general license established by 12 VAC 5-481-430 I 1 until he has filed Agency Form RH-F-14, "Certificate" – In Vitro Testing with Radioactive Material Under General License", with the commissioner and received from the commissioner a validated copy of Agency Form RH-F-14 with certification number assigned, or until he has been authorized pursuant to 12 VAC 481-470 C 3 to use radioactive material under the general license of 12 VAC 5-481-430 I. The physician, veterinarian, clinical laboratory or hospital shall furnish on Agency Form RH-F-14 the following information and such other information as may be required that form:
 - a. Name and address of the physician, veterinarian, clinical laboratory or hospital ;
 - b. The location of use; and
 - c. A statement that the physician, veterinarian, clinical laboratory or hospital has appropriate radiation measuring instruments to carry out in vitro clinical or laboratory tests with radioactive material as authorized under the general license in 12 VAC 5-481-430 I 1 and that such tests will be performed only by personnel competent in the use of such instruments and the handling of radioactive material.
3. A person who receives, acquires, possesses, or uses radioactive material pursuant to the general license established by 12 VAC 5-481-430 I 1 shall comply with the following:
 - a. The general licensee shall not possess at any one time, pursuant to the general license in 12 VAC 5-481-430 I 1, at any one location of Iodine-125 and/or iodine-131 in excess of 200 microcuries (7.4 MBq).
 - b. The general licensee shall store the radioactive material, until used, in the original shipping container or in a container Providing equivalent radiation protection.
 - c. The general licensee shall use the radioactive material only for the uses authorized by 12 VAC 5-481-430 I 1.
 - d. The general licensee shall not transfer the radioactive material to a person who is not authorized to receive it pursuant to a license issued by the commissioner, the U.S. Nuclear Regulatory Commission, any Agreement State or Licensing State, nor transfer the radioactive material in any manner other than in the unopened, labeled shipping container as received from the supplier.
4. The general licensee shall not receive, acquire, possess or use radioactive material pursuant to 12 VAC 5-481-430 I 1:
 - a. Except as prepackaged units which are labeled in accordance with the provisions of an applicable specific license issued Pursuant to 12 VAC 5-481-490 H or in accordance with the provisions of a specific license issued by the U.S. Nuclear Regulatory Commission, any Agreement State or Licensing State which authorizes the manufacturers and distribution of iodine-125 or iodine-131 to persons generally licensed under 12 VAC 5-481-430 I or it's equivalent, and
 - b. unless one of the following statements, as appropriate, or substantially similar statement which contains the information called for in one of the statements, appears on a label affixed to each prepackaged unit or appears in a leaflet or brochure which accompanies the package:
 - (1) This radioactive material shall be received, acquired, possessed, and used only by physicians, veterinarians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material , or the radiation therefrom, to human beings or animals. Its receipt, acquisition, possession, use and transfer are subject to the regulations and a general license of the U.S. Nuclear Regulatory Commission or of a State with which the Commission has entered into an agreement for the exercise of regulatory authority.

Name of Manufacturer
 - (2) This radioactive material shall be received, acquired, possessed, and used only by physicians, veterinarians, clinical laboratories or hospitals and only for in vitro tests not involving internal or external administration of the material, or radiation therefrom, to human beings or animals. Its receipt, acquisition, possession, use and transfer are subject to the regulations and a general license of a Licensing State.

Name of Manufacturer
5. The physician, veterinarian, clinical laboratory or hospital possessing or using radioactive material under the general license Of 12 VAC 5-481-430 I 1 shall report in writing to the commissioner, any changes in the information furnished by him in the "Certificate" – In Vitro Testing with Radioactive Material Under General License", Agency Form RH-F-14. The report shall be furnished within 30 days after the effective date of such change.
6. Any person using radioactive material pursuant to the general license of 12 VAC 5-481-430 I 1 is exempt from the requirements of Part V and Part IX of these regulations with respect to radioactive material covered by that general license.

Note: If larger quantities or other forms of radioactive material than those specified in the general license of 12 VAC 5-481-430 I are required, the physician should file an "application for Radioactive Material License", Agency Form RH-F-4 and obtain a specific radioactive material license. Copies of the application and certification forms may be obtained from: Va. Health Dept., Radiological Health, P.O. Box 2448, Richmond, Va. 23219.

RH-F-20
1/99

**VIRGINIA DEPARTMENT OF HEALTH
RADIOLOGICAL HEALTH**
P.O. Box 2448
Richmond, VA 23218
(804) 786-5932

**QUARTERLY REPORT OF X-RAY
MACHINE TRANSFERS**

In accordance with 12 VAC 5-481-350, Vendor Obligations of the Va. Radiation Protection Regulations, the following persons have bought, sold, traded, or leased X-ray equipment during the time period:

From: _____ To: _____

Type of transfer: **B** – Bought , **S** – Sold , **T** – Traded , **L** – Leased

Mail completed form to: Va. Health Dept. Telephone:
Radiological Health (804) 786-5932
P.O. Box 2448
Richmond, VA 23219

Name	Address	Manufacturer	Model	Transfer	
				Date	Type

Vendor: _____ Reported by: _____
Address: _____ Date: _____

P.O. Box 2448
Richmond, VA 23218
(804) 786-5932

X-ray Machine Inspection Report

Registrant Name _____
Address _____
City, State, ZIP _____
Phone (____) _____
Surveyor Name _____
Surveyor Signature _____
Survey Date _____ Office Contact Person _____

Specify Type of Practice
_____ Hospital
_____ Medical
_____ Dental
_____ Veterinary
_____ Podiatric
_____ Chiropractic
_____ Other (specify)

_____ Total # of X-ray tubes at this location
_____ # of tubes inspected
_____ # of serious violations discovered

GENERAL ADMINISTRATIVE ITEMS

- | OK | N/A | N/S | S | |
|-----|-----|-----|-----|---|
| ___ | ___ | ___ | ___ | 1. Form RH-F-12, "Notice to Employees", not posted (12 VAC 5-481-2590 C)
NON-SERIOUS |
| ___ | ___ | ___ | ___ | 2. Personnel radiation dose limits exceeded (explains in remarks) (12 VAC 5-481-640, 700 & 710)
SERIOUS |
| ___ | ___ | ___ | ___ | 3. Radiation exposure levels in unrestricted are excessive (explain in remarks) (12 VAC 5-481-720)
SERIOUS |
| ___ | ___ | ___ | ___ | 4. Personnel monitoring records inadequate (explain in remarks) (12 VAC 5-481-680 F)
SERIOUS |
| ___ | ___ | ___ | ___ | 5. Personnel monitoring is necessary but is not properly provided (12 VAC 5-481-760)
SERIOUS |
| ___ | ___ | ___ | ___ | 6. Safety procedures not posted, inadequate, or not available (12 VAC 5-481-1590 A 4)
NON-SERIOUS |
| ___ | ___ | ___ | ___ | 7. Gonadal shielding is necessary, but not available (12VAC 5-481-1590 A 6) SERIOUS |
| ___ | ___ | ___ | ___ | 8. The speed of the film/screen used is not the fastest consistent with the diagnostic objective (12 VAC 5-481-1590 A 9 a) NON-SERIOUS |
| ___ | ___ | ___ | ___ | 9. Information and maintenance records inadequate or not available (12 VAC 5-481-1590 A 12) NON-SERIOUS |
| ___ | ___ | ___ | ___ | 10. Registration form not available for review (12 VAC 5-481-370 B) NON-SERIOUS |
| ___ | ___ | ___ | ___ | 11. X-ray log inadequate or not available (12 VAC 5-481-1590 A 13) NON-SERIOUS |
| ___ | ___ | ___ | ___ | 12. Operator's list not posted, inadequate, or not available (12VAC 5-481-1590 A 14)
NON-SERIOUS |
| ___ | ___ | ___ | ___ | 13. Other / Remarks: _____

_____ |

Virginia Department of Health
Radiological Health
GENERAL RADIOGRAPHIC SYSTEMS

TUBE REGISTRATION # _____

Machine:

Registrant Name _____	Make _____	Purpose _____
Surveyor Name _____	Model _____	Serial _____
Surveyor Signature _____	Max, kVp _____	Max mA _____
Survey Date _____	Room # _____	Phase: ___1___3

OK N/A N/S S

- ___ ___ ___ 1. Warning label not present (12 VAC 5-481-1600 A). **NON-SERIOUS**
- ___ ___ ___ 2. HVL at ___ kVp is ___ mm A1. Minimum is ___ mm A1 (12 VAC 5-481-1600 E). Deficiency of ≤ 0.2 mm **NON-SERIOUS**, deficiency of > 0.2 mm **SERIOUS**
- ___ ___ ___ 3. The length ___ width ___ misalignment between the X-ray and visual fields is ___% of the SID (12 VAC 5-481-1620 A 2) $> 2\%$ to $< 5\%$ **NON-SERIOUS**, $\geq 5\%$ **SERIOUS**
- ___ ___ ___ 4. Misalignment between center of X-ray field and center of image receptor is ___% of the SID (12 VAC 5-481-1620 A 2) SID (12 VAC 5-481-1620 A 2). $> 2\%$ to $< 5\%$ **NON-SERIOUS**, $\geq 5\%$ **SERIOUS**
- ___ ___ ___ 5. SID not indicated to within 2% of SID (12 VAC 5-481-1620 A 2). **NON-SERIOUS**
- ___ ___ ___ 6. The length ___ width ___ dimensions of the X-ray field not indicated to within 2% of the SID (12 VAC 5-481-1620 A 2). **NON-SERIOUS**
- ___ ___ ___ 7. The length ___ width - of the X-ray field exceeds that of the image receptor by ___% of the SID (special purpose system only, 12 VAC 5-481-1620 A 3). $> 2\%$ to $< 5\%$ **NON-SERIOUS**, $\geq 5\%$ **SERIOUS**
- ___ ___ ___ 8. Radiographic control does not require constant operator pressure or does not terminate the exposure properly (12 VAC 5-481-1620 B 1, 2 & 3) **SERIOUS**
- ___ ___ ___ 9. Radiographic control switch not permanently located in an appropriate protected area or on a stretch cord of sufficient length as required (12 VAC 5-481-1620 6 A & B). **SERIOUS**
- ___ ___ ___ 10. X-ray control not equipped with both visual and audible indication of X-ray production (12 VAC 5-481-1620 B 2). **SERIOUS**
- ___ ___ ___ 11. Timer reproducibility: coefficient of variation is ___% at a technique setting of _____ (12 VAC 5-481-1620 D). $>10\%$ to $< 15\%$ **NON-SERIOUS**, $\geq 15\%$ **SERIOUS**
- ___ ___ ___ 12. Exposure reproducibility: coefficient of variation is ___% at a technique setting of _____ (12 VAC 5-481-1620 D). $>10\%$ to $< 15\%$ **NON-SERIOUS**, $\geq 15\%$ **SERIOUS**
- ___ ___ ___ 13. Timer accuracy is \pm ___% of the indicated time at ___ sec. (12 VAC 5-481-1620 F). $> 10\%$ to $< 15\%$ **NON-SERIOUS**, $\geq 15\%$ **SERIOUS**
- ___ ___ ___ 14. Standby radiation exposure is more than 2 mR/hr (capacitor discharge systems only, (12 VAC 5-481-1620 E)). **SERIOUS**
- ___ ___ ___ 15. mA Linearity: mR/mAs values at ___mA and ___mA differ by more than 10% of their sum (12 VAC 5-481-1620 G). **NON-SERIOUS**
- ___ ___ ___ 16. Positive beam limitation, if present, does not operate properly (12 VAC 5-481-1620 H 2). **NON-SERIOUS**
- ___ ___ ___ 17. Light field illuminance is _____ ft. candles. Must be no less than 10 ft. candles at 100 centimeters or at the max. SID whichever is less (12 VAC 5-481-1620 H 2). **NON-SERIOUS**
- ___ ___ ___ 18. kVp accuracy is \pm ___% of indicated kVp at ___ kVp (12 VAC 5-481-1620 F). $> 10\%$ to $< 15\%$ **NON-SERIOUS**, $\geq 15\%$ **SERIOUS**
- ___ ___ ___ 19. Exposure data: projection: _____ technique factors: ___ kVp ___ mA ___ MS ___ inches SID. Exposure results: _____ mR.
- ___ ___ ___ 20. Other / Remarks:

Virginia Department of Health
Radiological Health
P.O. Box 2448
Richmond, VA 23218
(804) 786-5932

RH-F-23
1/99

DENTAL INTRAORAL RADIOGRAPHIC SYSTEMS PAGE ___ OF ___

TUBE REGISTRATION # _____

Machine:

Registrant Name _____ Make _____ Purpose Intraoral
Surveyor Name _____ Model _____ Serial _____
Surveyor Signature _____ Max kVp _____ Max. mA _____
Survey Date _____ Room # _____

OK N/A N/S S

- ___ ___ ___ ___ 1. Warning label is not present (12 VAC 5-481-1600A) **NON-SERIOUS**
- ___ ___ ___ ___ 2. HVL at ___ kVp is ___ mm Al. Minimum is ___ mm Al (12 VAC 5-481-1600 E) Deficiency of \leq .2 mm **NON-SERIOUS**, deficiency of $>$.2mm **SERIOUS**
- ___ ___ ___ ___ 3. Multiple tubes are controlled from one control panel, but indication of the selected tube is not present at both the ___ panel and the ___ selected tube (12 VAC 5-481-1600 F). One missing, **NON-SERIOUS**; both missing, **SERIOUS**
- ___ ___ ___ ___ 4. Tubehead does not remain stationary in the exposure position (12 VAC 5-481-1600 G). **SERIOUS**
- ___ ___ ___ ___ 5. Diameter of X-ray field is ___ cm. Maximum allowable is: 7 cm with SSD \geq 18 cm, 6 cm with SSD $<$ 18 cm (12VAC 5-481-1630 B). Excess of $<$ 1 cm, **NON-SERIOUS**; excess of \geq 1 cm, **SERIOUS**
- ___ ___ ___ ___ 6. Radiographic control does not require constant operator pressure or does not terminate the exposure properly (12 VAC 5-481-1630 C). **SERIOUS**
- ___ ___ ___ ___ 7. Exposure reproducibility: coefficient of variation ___ % at a technique setting of _____ (12 VAC 5-481-1630 D). $>$ 10% to $<$ 15% **NON-SERIOUS**, \geq 15% **SERIOUS**
- ___ ___ ___ ___ 8. Radiographic control switch not permanently located in an appropriate protected area or on a stretch cord of sufficient length as required (12 VAC 5-481-1630 C 5). **SERIOUS**
- ___ ___ ___ ___ 9. Radiographic control not equipped with both visual and audible indication of X-ray production (12 VAC 5-481-1630 C 2). **NON-SERIOUS**
- ___ ___ ___ ___ 10. Unit not equipped with an open ended shielded position indicating device. **NON-SERIOUS**
- ___ ___ ___ ___ 11. kVp accuracy is \pm ___ % of indicated kVp (12 VAC 5-481-1630 F) $>$ 10% to $<$ 15% **NON-SERIOUS**, \geq 15% **SERIOUS**
- ___ ___ ___ ___ 12. Exposure data: Projection: _____ technique factors.
_____ kVp _____ mA _____ MS _____ inches SID. Exposure results: _____ mR
- ___ ___ ___ ___ 13. Timer accuracy is \pm _____ % of indicated SEC at _____ SEC (12 VAC 5-481-1630 F) $>$ 10% to $<$ 15% **NON-SERIOUS**, \geq 15% **SERIOUS**
- ___ ___ ___ ___ 14. Other / Remarks: _____

Virginia Department of Health
Radiological Health
P.O. Box 2448
Richmond, VA 23218
(804) 786-5932

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FLUOROROSCOPIC RADIOGRAPHIC SYSTEMS

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TUBE REGISTRATION # _____

Machine:

Registrant Name _____ Make _____
Purpose _____
Surveyor Name _____ Model _____ Serial _____
Surveyor Signature _____ Max. kVp _____ Max.mA _____
Survey Date _____ Room # _____ Phase: _____
_____1_____3

OK N/A N/S S

- ___ ___ ___ 1. Warning label not present (12 VAC 5-481-1600 A). **NON-SERIOUS**
- ___ ___ ___ 2. HVL at ___kVp is ___mm Al. Minimum is ___mm Al (12 VAC 5-481-1600 A). Deficiency of $\leq .2$ mm **NON-SERIOUS**, deficiency of $> .2$ mm **SERIOUS**.
- ___ ___ ___ 3. Primary barrier does not intercept the entire beam at all SID's. (12 VAC 5-481-1610 A). **SERIOUS**.
- ___ ___ ___ 4. X-rays may be produced when primary barrier is not in position to intercept the beam (12VAC 5-481-1610 A). **SERIOUS**.
- ___ ___ ___ 5. The length ___ width___ of X-ray field exceeds that of the visible area by ___% of the SID and/or the sum of both percentages is ___% (12 VAC 5-481-1610 A 2). $>3\%$ to $<6\%$ of one or $>4\%$ to $<8\%$ of both, **NON-SERIOUS**, $\geq 6\%$ of one or $\geq 8\%$ of both, **SERIOUS**.
- ___ ___ ___ 6. No means to reduce the area of the X-ray field to less than that of the visible area such that the minimum field size at the maximum SID is ≤ 5 cm x 5 cm (12 VAC 5-481-1610 A 2). **SERIOUS**.
- ___ ___ ___ 7. Fluoroscopic control does not require constant operator pressure (12 VAC 5-481-1610 B). **SERIOUS**.
- ___ ___ ___ 8. Maximum entrance exposure rate is ___ R/min. (Systems without HLC, 12 VAC 5-481-1610 D). >10 to <12 R/min **NON-SERIOUS**, ≥ 12 R/min **SERIOUS**.
- ___ ___ ___ 9. Maximum entrance exposure rate is ___ R/min without HLC activated: is ___ R/min with HLC activated. Systems with HLC, 12 VAC 5-481-1610 C). Not activated: > 5 to <12 R/min **NON-SERIOUS**, ≥ 12 R/min **SERIOUS** HLC activated: >15 to <17 R/min **NON-SERIOUS**, ≥ 17 R/min **SERIOUS**.
- ___ ___ ___ 10. Barrier transmission rate is ___ m/R/hr per R/min entrance exposure rate (12 VAC 5-481-1610 C). > 2 to < 4 mR/hr **NON-SERIOUS**, ≥ 4 mR/hr **SERIOUS**.
- ___ ___ ___ 11. Minimum source to skin distance is ___cm. Minimum allowed is: 38 cm (stationary, installed after 9/1/80); 35.5 cm (stationary, installed before 9/1/80); 30 cm (mobile); 20 cm (special surgical applications) (12 VAC 5-481-1610 F). **NON-SERIOUS**.
- ___ ___ ___ 12. Five minute timer is not present or does not operate properly(12 VAC 5-481-1610 G). **NON-SERIOUS**.
- ___ ___ ___ 13. Scatter radiation from above the table is not attenuated by at least 25 mm lead equivalent (except small procedures) (12 VAC 5-481-1610 H). **NON-SERIOUS**.
- ___ ___ ___ 14. Scatter radiation from under the table is not attenuated by at least 25mm lead equivalent (except special procedures) (12 VAC 5-481-1610 H). **SERIOUS**.
- ___ ___ ___ 15. kVp accuracy is \pm ___% of indicated kVp at ___ kVp (12 VAC 5-481-1620 F). $>10\%$ to 15% **NON-SERIOUS**, $\geq 15\%$ **SERIOUS**.
- ___ ___ ___ 16. Other / Remarks

Virginia Department of Health Radiological Health

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VETERINARY RADIOGRAPHIC SYSTEMS

PAGE ___ OF ___

TUBE REGISTRATION # _____

	Machine:	
Registrant Name _____	Make _____	Purpose _____
Surveyor Name _____	Model _____	Serial _____
Surveyor Signature _____	Max. kVp _____	Max. mA _____
Survey Date _____	Room # _____	Phase: ____ 1 ____ 3

OK N/A N/S S

- | | |
|---------|---|
| — — — — | 1. Warning label not present (12 VAC 5-481-1600A). NON-SERIOUS. |
| — — — — | 2. Useful beam not collimated properly to area of clinical interest (12 VAC 5-481-1620 A) NON-SERIOUS. |
| — — — — | 3. Radiographic control does not require constant operator pressure or does not terminate exposure properly (12 VAC 5-481-1620 B). SERIOUS. |
| — — — — | 4. Operator cannot stand at least nine (9) feet from animal and out of the useful beam during all X-ray exposures (12 VAC 5-481-1620 B). SERIOUS. |
| — — — — | 5. Appropriate shielding devices (such as aprons and gloves) not provided for individuals who hold animals during radiography (12 VAC 5-481-1590 A 8 f). SERIOUS. |
| — — — — | 6. HVL at ____ kVp is ____ mm Al. Minimum is ____ mm Al (12 VAC 5-481-1600 E). Deficiency of ≤ 0.2 mm NON-SERIOUS , deficiency of > 0.2 mm SERIOUS. |
| — — — — | 7. X-ray control not equipped with both visual and audible indication of X-ray production (12 VAC 5-481-1620 B 2). NON-SERIOUS. |
| — — — — | 8. Radiation exposure of any individual used for holding animals during radiography is not monitored (12 VAC 5-481-1590 A 8 f). SERIOUS. |
| — — — — | 9. Exposure reproducibility: coefficient of variation is ____% at a technique setting of ____ (12 VAC 5-481-1620 D). > 10% to <15% NON-SERIOUS , ≥ 15% SERIOUS. |
| — — — — | 10. Timer reproducibility: coefficient variation is ____% at a technique setting of ____ (12 VAC 5-481-1620 D). >10% to <15% NON-SERIOUS , ≥ 15% SERIOUS. |
| — — — — | 11. Timer accuracy is ± ____% at ____ sec. (12 VAC 5-481-1620 F). >10% to <15% NON-SERIOUS , ≥ 15% NON-SERIOUS. |
| — — — — | 12. KVp accuracy is ± ____% of indicated kVp at ____ kVp (12 VAC 5-481-1620 F). >10% to <15% NON-SERIOUS , ≥ 15% SERIOUS. |
| — — — — | 13. Light field illuminance is ____ft. candles. Must be no less than 10 ft. candles at 100 centimeters or at the max. SID whichever is less (12 VAC 5-481-1620 H 1). <10to 8 ft. candles: NON-SERIOUS < 8 ft. candles: SERIOUS. |
| — — — — | 14. Other / Remarks: |

Virginia Department of Health
Radiological Health

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DENTAL PANOGRAPHIC X-RAY SYSTEMS

PAGE ___ OF ___

TUBE REGISTRATION # _____

Registrant Name _____
Surveyor Name _____
Surveyor Signature _____
Survey Date _____

Machine:
Make _____
Model _____ Serial _____
Max. kVp _____ Max. mA _____
Room # _____

OK N/A N/S S

- _____ 1. Warning label not present (12 VACS-481-1600A). **NON-SERIOUS**
- _____ 2. Multiple tubes are controlled from one control panel, but indication of the selected tube is not present at both the _____ panel and the _____ selected tube (12VAC 5-481-1600 F). One missing, **NON SERIOUS**; both missing, **SERIOUS**.
- _____ 3. The X-ray field at the plane of the image receptor extends beyond any edge of the image receptor (12VAC 5- 481-1620 A 2). **SERIOUS**.
- _____ 4. Radiographic control does not require constant operator pressure or does not terminate the exposure properly (12 VAC 5-481-1620 B 1, 2, & 3). **SERIOUS**.
- _____ 5. Exposure reproducibility: coefficient of variation is ____% at a technique setting of _____ (12 VAC 5-481-1620 D). >10% to <15% **NON SERIOUS**. ≥ 15% **SERIOUS**.
- _____ 6. Radiographic control switch not permanently located in an appropriate protected area or on a stretch cord of sufficient length as required (12 VAC 5-481-1620 B 6 a & b) **SERIOUS**.
- _____ 7. Radiographic control not equipped with both visual and audible indication of X-ray production (12 VAC 5-481-1620 B 2). **NON-SERIOUS**.
- _____ 8. Other / Remarks: _____

RH-F-27 APPLICATION TO BE LISTED AS A PRIVATE INSPECTOR OF X-RAY MACHINES

1/99

Virginia Health Department
Radiological Health
P.O. Box 2448
Richmond, VA 23219
(804) 786-5932

Name _____ Company _____

Address _____ City _____ State _____ Zip _____

Office Phone (____) _____ Home Phone (____) _____

In order to be listed as a private inspector of X-ray machines, that person must meet the criteria set forth in Appendix A of the Va. Radiation Protection Regulations.

Indicate your qualifications below:

A. Private Inspector, Diagnostic X-ray.

___ Certified by the American Board of Radiology

___ Certified by the American Board of Health Physics (in comprehensive practice)

___ Bachelor's degree in one of the physical sciences or engineering and three years of full time experience in radiation safety including at least one year in diagnostic X-ray safety. Advanced degrees in related areas may be substituted for experience on an equal time basis, except that no substitution shall be allowed for the required one year experience in diagnostic X-ray safety.

___ Five years experience in health physics, radiological physics, or diagnostic X-ray safety under the direct supervision of an individual who meets the criteria above.

B. Private Inspector, Therapeutic X-ray and Teletherapy Machines.

___ Certified by the American Board of Radiology in therapeutic radiological physics, radiological physics, or X-ray gamma ray physics.

___ Bachelor's degree in one of the physical sciences or engineering and three years full time experience working in therapeutic radiological physics under the direction of a physicist certified by the American Board of Radiology. The work duties must include involving the calibration and spot checks of a medical accelerator or a sealed source teletherapy unit.

___ The individual has a master's or a doctor's degree in physics, biophysics, radiological physics, health physics, or engineering; has had one year's full time training in therapeutic radiological physics; and has had one year's full time work experience in a radiotherapy facility where the individual's duties involve calibration and spot checks of a medical accelerator or a sealed source Teletherapy unit.

Are you available for consulting from Va. Registrants for a fee? ___ yes ___ no

Comments _____

Signature _____ Date _____

